

THE EFFECT OF LIQUIDITY AND SOLVENCY ON PROFITABILITY:
THE CASE OF PUBLIC-LISTED CONSUMER PRODUCT
COMPANIES IN MALAYSIA

HANAFFIE BIN MD YUSOFF

A thesis submitted in
fulfillment of the requirement for the award of the
Degree of Master of in Science of Technology Management

Faculty of Technology Management and Business
University Tun Hussein Onn Malaysia

JUNE 2017

DEDICATION

To my beloved family members,
Thank you for always being with me



ACKNOWLEDGEMENT

I thank God for His unceasing love in granting me the opportunity to pursue my master degree and the ability to successfully undertake the research.

I would like to express my special thanks and gratitude to my respectable supervisor, Dr Kamilah Binti Ahmad for her endless support encouragement and guidance during the research work. Furthermore, I would like to express my warm thanks to those who were directly and indirectly involved within the process of completing this research. I would like to thank the personnel of the Faculty of Technology Management and Business for their cooperation during my research.

Last but not least, I sincerely thank to my beloved family members and friends for their continuous support in all forms, both physically and mentally which has resulted in the completion of my research.



ABSTRACT

The optimal level of liquidity and solvency has been one of the key financial components essential for a smooth operation, particularly in maintaining firm performance. Successful companies will normally manipulate the two closely interrelated financial elements; liquidity and debt structure to maximize the firm's value as well for achieving an optimal hedging strategy. Subsequently a careful attention to these two elements will help companies to achieve a lower reduction in a bankruptcy costs and to reduce the likelihood of financial distress. The illiquidity problem, unless remedied, will lead to insolvency as the business liabilities exceed its assets. For larger organizations, maintaining a good level of liquidity can ensure the stability of the business. Thus, this study sought to examine the effect of liquidity and debt on the profitability among large firms in consumer product sector in Malaysia. In order to meet the objectives a quantitative panel data methodology was employed. The data were obtained from the audited financial statements of 116 firms in consumer product sector for the period of three years (2012 – 2015). The findings reveal that liquidity in term of quick ratio has positive and significant effect on profitability. While, current ratio has negative but insignificant effect on profitability. The result further reveals that solvency has no significant effect on profitability. The study recommends that the firms can improve their performance by increasing the level of liquidity and maintaining their optimal debt structure level.

ABSTRAK

Tahap optimum kecairan dan kesolvenan merupakan salah satu komponen kewangan yang penting bagi mana-mana organisasi untuk memastikan operasi yang lancar, terutamanya dalam mengekalkan prestasi syarikat. Syarikat-syarikat besar biasanya memanipulasi tahap kecairan dan hutang untuk memaksimumkan prestasi dan pulangan mereka. Kekurangan kecairan merupakan petunjuk krisis kecairan. Ketidackairan, melainkan diperbaiki, akan menyebabkan ketidakmampuan untuk membayar dan akhirnya mufliis kerana liabiliti perniagaan melebihi aset. Bagi organisasi yang besar, mengekalkan tahap kecairan yang baik dapat memastikan kestabilan perniagaan. Kajian ini bertujuan untuk mengkaji kesan kecairan dan solvensi kepada keuntungan antara syarikat besar dalam sektor produk pengguna di Malaysia. Dalam usaha untuk memenuhi objektif kajian ini kaedah panel data kuantitatif telah digunakan. Data diperolehi daripada penyata kewangan yang telah diaudit daripada 116 syarikat dalam sektor produk pengguna bagi tempoh tiga tahun (2012 - 2015). Dapatan kajian menunjukkan bahawa kecairan dari segi nisbah cepat mempunyai hubungan positif yang signifikan kepada keuntungan. Manakala, nisbah semasa mempunyai hubungan negatif tetapi tidak signifikan dengan keuntungan. Dapatan kajian juga menunjukkan bahawa solvensi tiada hubungan signifikan dengan keuntungan. Kajian ini mencadangkan bahawa syarikat boleh meningkatkan prestasi syarikat dengan meningkatkan tahap kecairan dan mengekalkan tahap hutang optimum.

CONTENTS

| | |
|-------------------------------|------------|
| TITLE | i |
| STUDENT DECLARATION | ii |
| DEDICATION | iii |
| ACKNOWLEDGEMENT | iv |
| ABSTRACT | v |
| ABSTRAK | vi |
| CONTENTS | vii |
| LIST OF TABLES | xii |
| LIST OF FIGURES | xiv |
| LIST OF ABBREVIATIONS | xv |
| LIST OF APPENDICES | xvi |
| CHAPTER 1 INTRODUCTION | |
| 1.1 Introduction | 1 |
| 1.2 Research Background | 4 |

| | |
|--|----|
| 1.3 Problem Statement | 6 |
| 1.4 Research Question | 9 |
| 1.5 Research Objective | 9 |
| 1.6 Research Scope | 9 |
| 1.7 Research Significant | 9 |
| 1.8 Operationalization Term Definition | 10 |
| 1.9 Structure of Thesis | 12 |
| 1.10 Summary of Chapter | 14 |

CHAPTER 2 LITERATURE REVIEW

| | |
|---|----|
| 2.1 Introduction | 15 |
| 2.2 Details in Operationalization Term Definition | 15 |
| 2.2.1 Working Capital Concept | 15 |
| 2.2.1.1 Liquidity Concept | 16 |
| 2.2.1.1.1 Current Ratio | 17 |
| 2.2.1.1.2 Quick Ratio | 17 |
| 2.2.2 Solvency Concept | 18 |
| 2.2.2.1 Debt Ratio | 19 |
| 2.2.2.2 Debt to Equity Ratio | 19 |
| 2.2.3 Financial Performance Concept | 19 |
| 2.2.3.1 Profitability Concept | 20 |
| 2.2.3.1.1 Return on Asset | 20 |
| 2.2.3.1.2 Return on Equity | 21 |
| 2.3 Theories Related to Liquidity and Solvency on Profitability | 21 |
| 2.3.1 Stastic Trade off Theory | 22 |
| 2.3.2 Perking Order Theory | 22 |
| 2.4 Findings in Literature Review | 23 |
| 2.4.1 Relationship between Liquidity and Profitability | 24 |
| 2.4.2 Relationship between Solvency and Profitability | 29 |
| 2.5 Summary of previous studies of relationship between liquidity and solvency and firm profitability | 33 |

| | |
|--|----|
| 2.6 Summary of variables used in the previous studies of effect of liquidity and solvency on firm profitability | 37 |
| 2.7 Conceptual Framework | 41 |
| 2.8 Hypothesis Statement | 41 |
| 2.9 Summary of Chapter | 42 |

CHAPTER 3 RESEARCH METHODOLOGY

| | |
|--|----|
| 3.1 Introduction | 44 |
| 3.2 Research Methodology and Design | 44 |
| 3.3 Research Flowchart | 45 |
| 3.4 Sampling and Data Collection | 46 |
| 3.5 Data Analysis | 47 |
| 3.6 Model Specification | 48 |
| 3.7 Summary of variables used in the Study and their expected sign/impact and associations with data source | 49 |
| 3.8 Summary of Chapter | 50 |

CHAPTER 4 DATA ANALYSIS AND FINDINGS

| | |
|--|----|
| 4.1 Introduction | 51 |
| 4.2 Descriptive Analysis | 52 |
| 4.3 Frequency of Liquidity and Solvency Level | 53 |
| 4.3.1 Frequency of Current Ratio Level | 53 |
| 4.3.2 Frequency of Quick Ratio Level | 54 |
| 4.3.3 Frequency of Debt Ratio Level | 56 |
| 4.3.4 Frequency of Debt to Equity Ratio Level | 56 |
| 4.4 Correlation Analysis | 58 |
| 4.5 Reliability Test | 59 |
| 4.6 Test for Assumptions of Ordinary Least Square | 59 |
| 4.6.1 Assumption 1: The errors have zero mean | 60 |
| 4.6.2 Assumption 2: The variance of the errors is constant finite over all values | 60 |

| | |
|--|----|
| 4.6.3 Assumption 3: The errors are linearly independent of one another | 61 |
| 4.6.4 Assumption 4: There is no relationship between the error and corresponding x variate | 65 |
| 4.6.5 Assumption 5: Covariance between the error terms over time is zero | 67 |
| 4.7 Regression Result on Profitability | 68 |
| 4.7.1 Model selection criteria | 68 |
| 4.7.2 Regression Analysis of Liquidity and Solvency on Return on Asset | 70 |
| 4.7.3 Regression Analysis of Liquidity and Solvency on Return on Equity | 72 |
| 4.8 Chapter Summary | 73 |

CHAPTER 5 DISCUSSION, CONCLUSION AND RECOMMENDATION

| | |
|--|----|
| 5.1 Introduction | 74 |
| 5.2 Overview of Research Process | 75 |
| 5.3 Summary of Findings | 75 |
| 5.3.1 The level of liquidity, solvency and profitability among public-listed consumer product companies in Malaysia | 75 |
| 5.3.2 The relationship between liquidity and solvency and the profitability of public-listed consumer product companies in Malaysia. | 77 |
| 5.3.2.1 Relationship between Current Ratio and Profitability | 78 |
| 5.3.2.2 Relationship between Quick Ratio and Profitability | 78 |
| 5.3.2.3 Relationship between Debt Ratio and Profitability | 79 |
| 5.3.2.4 Relationship between Debt to Equity Ratio and Profitability | 79 |
| 5.4 Summary of Hypothesis Testing | 80 |
| 5.5 Summary Comparison of expected sign and actual result | 81 |
| 5.6 Limitations of the Study | 82 |
| 5.7 Recommendation for Further Research | 82 |

| | |
|-------------------|-----------|
| 5.8 Conclusion | 83 |
| REFERENCES | 86 |
| APPENDICES | 98 |
| VITA | |



LIST OF TABLES

| | | |
|------|---|----|
| 1.1 | Operationalization Term | 11 |
| 2.1 | Summary of previous studies | 34 |
| 2.2 | Summary of variables used in the previous studies of effect of liquidity and solvency on firm profitability | 38 |
| 3.1 | Summary of variables used and their expected sign associations | 49 |
| 4.1 | Descriptive Analysis | 52 |
| 4.2 | Frequency of Current Ratio Level | 54 |
| 4.3 | Frequency of Quick Ratio Level | 55 |
| 4.4 | Frequency of Debt Ratio Level | 56 |
| 4.5 | Frequency of Debt to Equity Ratio Level | 57 |
| 4.6 | Correlation matrix of dependent and independent variables | 58 |
| 4.7 | Reliability Test | 59 |
| 4.8 | Heteroskedasticity test: Breusch-Pagan-Godfrey for Model 1 | 61 |
| 4.9 | Heteroskedasticity test: Breusch-Pagan-Godfrey for Model 2 | 61 |
| 4.10 | Correlation matrix between explanatory variables | 66 |
| 4.11 | Breusch-Godfrey Serial Correlation LM Test for Model 1 | 67 |
| 4.12 | Breusch-Godfrey Serial Correlation LM Test for Model 2 | 68 |
| 4.13 | Hausman test for Model 1 | 69 |
| 4.14 | Hausman test for Model 2 | 70 |

| | | |
|------|---|----|
| 4.15 | Regression Analysis of Liquidity and Solvency on Return on Asset | 70 |
| 4.16 | Regression Analysis of Liquidity and Solvency on Return on Equity | 72 |
| 5.1 | Summary of Hypothesis Testing | 80 |
| 5.2 | Comparison of expected sign/impact and actual result | 81 |
| 5.3 | Direction explanatory variable to take for increasing profitability | 84 |



LIST OF FIGURE

| | | |
|-----|---|----|
| 1.1 | Index of retail trade | 5 |
| 2.1 | Conceptual Framework | 41 |
| 4.1 | Normality test for liquidity and solvency on return on asset | 62 |
| 4.2 | Normality test for liquidity and solvency on return on equity | 63 |
| 4.3 | Normality test for current ratio | 63 |
| 4.4 | Normality test for quick ratio | 64 |
| 4.5 | Normality test for debt ratio | 64 |
| 4.6 | Normality test for debt to equity ratio | 64 |
| 4.7 | Normality test for return on asset | 65 |
| 4.8 | Normality test for return on equity | 65 |

LIST OF ABBREVIATIONS

| | | |
|-----|---|----------------------|
| CR | - | Current Ratio |
| QR | - | Quick Ratio |
| DR | - | Debt Ratio |
| DER | - | Debt to Equity Ratio |
| ROA | - | Return On Asset |
| ROE | - | Return On Equity |



PTTHM
PERPUSTAKAAN TUNKU TUN AMINAH

LIST OF APPENDICES

| | | |
|------------|--|-----|
| APPENDIX A | Ratio Data of Liquidity, Solvency and Profitability | 98 |
| APPENDIX B | Output of E-view Results | 101 |



PTTA UTHM
PERPUSTAKAAN TUNKU TUN AMINAH

CHAPTER 1

INTRODUCTION

1.1 Introduction

The financial performance of companies is a subject that has attracted a lot of attention, comments and interests from both financial experts, researchers, the general public and the management of corporate entities. The financial performance of a firm can be analyzed in terms of profitability, dividend growth, sales turnover, return on investments among others. However, there is still debate among several disciplines regarding how the performance of firms should be measured and the factors that affect financial performance of companies (Liargovas and Skandalis, 2008). According to Iswatia and Anshoria (2007) performance is the function of the ability of an organization to gain and manage the resources in several different ways to develop competitive advantage. Firms with high leverage have greater incentive to engage in hedging due to the tax incentives (Jin and Jorian, 2006). Thus, firm with higher profitability decrease the expected cost of distress and let the firms increase their tax benefits by raising leverage. On the other hand, firms with highly liquid assets have less incentive to engage in hedging because they are exposed to a lower probability of financial distress (Kim and Sung, 2005) and allows the firms to take advantage of future investment opportunity to generate profitability (Mello and Parson, 2000).

Liquidity and solvency are two important key indicators used to measures the efficiency of company. While there may be interrelations between liquidity and debt

based on the hedging theory, large companies normally manage the level of liquidity and debt to maximize their performance and returns. Hedging principle involves matching the cash flow generating characteristics of an asset with the maturity of the source of financing used to acquire the asset (Burrow et al., 2015). The activity of hedging is undertaken mainly for shielding the revenue streams, profitability and balance sheets of companies against adverse price movements and cyclical reversals (Ghosh, 2013). A good hedging practice, hence, encompasses efforts on the part of companies to get a clear picture of their risk profile, risk appetite and benefits from risk aversion by hedging (Ghost, 2013).

Liquidity refers to the balance of assets in the form of cash or readily convertible into cash (current assets) and current liabilities (Dahiyat, 2016) whereas, solvency is the ability of a firms to have enough assets to cover its liabilities (Murray, 2016). Liquidity can also be defined as the ability to provide cash to meet day-to-day needs as they arise (Walsh, 2008). Meanwhile Kesimli and Gunay (2011) argued that liquidity is an investment in current assets and current liabilities which are liquidated within one year or less and is therefore crucial for firm's day to day operations. This component is essential in all firms to meet expected and contingent liquidity demands (Dahiyat, 2016).

Liquidity is closely related to working capital which is the money needed to finance the daily revenue generating activities of the firm. According to Vahid et al. (2012) working capital management plays a significant role in determining success or failure of firm in business performance due to its effect on firm's profitability. Business success depends heavily on the ability of financial managers to effectively manage the components of working capital (Filbeck and Krueger, 2005). A firm may adopt an aggressive or a conservative working capital management policy to achieve this goal. Therefore, organization must be able to generate enough money to cover short-term obligations to become liquid organization.

Liquidity ratios are a set of ratios that are used to calculate the liquidity position of an entity. These ratios help to determine whether an entity will be able to meet its financial obligations in the short-term. Low liquidity level will cause an organization to struggle to meet the obligations of business operations and therefore is forced to seek debt financing to support its operations. Jenkinson (2008) noted that liquidity is an important financial indicator that measures whether the company has the ability to meet its short term liabilities or not without incurring undesirable losses. Due to

ineffective use of assets, liquidity risk may arise which is obviously a most challenging risk compared to other financial risks. Subhanij (2010) argued that liquidity risk has become more complex because of recent developments in financial markets. Moreover, a liquidity crisis of a single company can affect, directly or indirectly, all the companies operating in the same industry. A firm with adequate liquidity has greater financial flexibility so it can negotiate with suppliers and financiers (CPA Australia, 2010).

According to Bhunia (2010) liquidity plays a significant role in the successful functioning of a business firm. A firm should ensure that it does not suffer from lack-of or excess liquidity to meet its short-term demands. There are various methods for analyzing liquidity for a business enterprise. Liquidity ratios used in liquidity management by each organization in the form of a current ratio and quick ratio. Quick ratio has a significant effect in the course of operation in which high ratio level will enable the company to avoid immediate payment and non-payment of debt or dependence on debt. While the current ratio (containing cash and near-cash assets such as inventories) could be an indication of short-term debt repayment capability and long-term installment payment by an organization (Saleem and Rehman, 2011). Therefore both ratios provide good indicator for assessing level of liquidity management in an organization.

Solvency on the other hand indicates the ability to meet long term financial obligation (Dahiyat, 2016). Solvency is traditionally viewed as arising from financing activities: firms borrow to raise cash for operations (Dahiyat, 2016). Solvency ratios used in solvency management by each organization in the form of a debt ratio and debt to equity ratio. Debt ratio will be calculated as a measure of solvency through measuring debt level of a business as a percentage of its total assets. It is calculated by dividing total debt of a business by its total assets. If the percentage is too high, it might indicate that it difficult for the business to pay off its debts and continue operations (Walsh, 2008). Meanwhile, debt to equity ratio is intended to bring out relative importance of debt financing in the firm and the risks in such financing (Khidmat and Rehman, 2014). In addition, return on asset and return on equity are need calculated to measure the profitability. Return on asset indicates the net income produced by total assets during a period by dividing net income to the average total assets (Gibson, 2009). Return on equity is measured as the ratio of profit generated to the total investment capital provided by the owner of the firm (Khidmat and Rehman, 2014).

Optimal debt ratio is generally defined as the one which minimizes the cost of capital for the company, while maximizing the value of company. According to static trade off theory, optimal capital structure is obtained by balancing the tax advantage of debt financing and leverage related costs such as financial distress and bankruptcy, holding firm's assets and investment constant. In other words, the optimal debt ratio is the one which maximizes the profitability of company (Kebewar and Ahmed Shah, 2013). On the other hand, pecking order theory suggest that firms make use of internal finance first and if it is necessary firms issue the safest security first in order to maximize the profit (Myers, 1984).

Therefore, liquidity and solvency can affect the profitability of a firm. Managers should strive to manage the effects of liquidity and solvency on the firm's profitability in order to maintain an acceptable productivity level. This will require effective planning that allows managers to be proactive and anticipate change, rather than be reactive to unanticipated change.

1.2 Research Background

This study focuses on corporate large companies in consumer product sector due to funding decisions for either long term or short term is very critical and significant for large-sized businesses. Consumer product sector is a category of stocks and companies that relate to items purchased by individuals rather than by manufacturers and industries. The consumer products industry can be divided into four groups: beverages, food, toiletries and cosmetics, and small appliances. Most firms offer products that fit primarily into only one of these groups, although a firm may have a smattering of brands that cross the lines. Generally, all companies are similar in organizational structure, emphasis on brand management, and approach to business. Consumer products are the foundation of the modern, consumer economy. The industry itself not only generates an enormous portion of the Gross Domestic Product (GDP), it also pumps huge amounts of money into other industries, notably advertising and retail.

The consumer sector is a tertiary sector of industry involves the provision of services to other businesses as well as final consumers. Firms from this industry sell products and services directly to the consumer. Services may involve the transport,

distribution and sale of goods from producer to a consumer, as may happen in wholesaling and retailing, or may involve the provision of a service, such as in pest control or entertainment. The goods may be transformed in the process of providing the service, as happens in the restaurant industry. The retail sector is a major catalyst for economic development in Malaysia and has shown GDP growth over the past few years due strong purchasing power, supported by an expanding middle class and rising household income. As shown in the figure 1.1, retail sales have grown at a high single-digit rate for each of the past two years.



Figure 1.1: Index of retail trade

Source: Department of Statistics Malaysia 2012-2013

Growth in the sector was driven largely by strong domestic demand during 2011 to 2014 period. The wholesale and retail trade subsector grew at an average of 6.7% backed by strong household spending, high tourist arrival and rising income level. The wholesale and retail trade is one of the biggest subsectors in the economy, which contributes substantially to economic growth, provides employment and entrepreneurship opportunities as well as enhances social wellbeing. The subsector registered an average growth rate of 6.7% annually and its contribution to GDP increased from 13.9% in 2011 to 14.7% in 2013 (Department of Statistic Malaysia,

2013). The steady growth of the subsector, particularly retail trade, was largely attributed to the increase in private consumption and tourist spending. The steady growth in retail trade led to global recognition, whereby Malaysia was ranked 9th from 30 emerging economies in the 2014 (Global Retail Development Index, 2014). Malaysia's scores in the index indicate high level of market attractiveness and saturation. This signals stiffer competition in domestic market and the need for local players to venture abroad. The wholesale and retail trade sector contribute 13.9% to GDP in year 2011 while in year 2014, wholesale and retail trade sector has an increase 0.5% from 13.9% to 14.4% to GDP (Department of Statistic Malaysia, 2014). While in year 2016, retail sector recorded an increase in sales value of RM7.3 billion or 7.9 % as compared to the previous year. The increase was driven by Retail Sales of Food (10.8%), Retail Sale of Cultural and Recreation Goods in Specialised Stores (9.8%) and Retail Sale of Food, Beverages and Tobacco in Specialised Stores (8.9%) (Department of Statistic Malaysia, 2016).

In particular this study scrutinize the effect of liquidity and solvency of a company on profitability of the firms. Liquidity and solvency play a big role for enhancing firm's profitability. However, there is less evidence in view of whether the level of liquidity and solvency of a firm can influence the level profitability of a firm particularly from the perspectives of the Malaysian firms.

1.3 Problem Statement

One of the major objectives of a firm is to maximize the wealth of owners or shareholders of the firm. The profitability of companies is a subject that has attracted a lot of attention, comments and interests from both financial experts, researchers, the general public and the management of corporate entities. The profitability of the company is affected by liquidity and solvency. One of the problem that affect the profitability of the company is liquidity risk. Liquidity risk occurs when a company is not able to meet its business obligations (Jenkinson, 2008). Muranaga and Oshawa (2002) defined liquidity risk as the risk of being unable a position timely at a reasonable prices. It occurs due to failure in the funds, or also due to the unfavorable economic situation. Furthermore, mismatches of current assets and liabilities are also

among the causes of liquidity problems that would lead to drastic liquidity crisis (Mishkin et al., 2006; Goodhart, 2008).

Good liquidity management is therefore an important objective for all companies since illiquidity may lead to insolvency (Goodhart, 2008) and poor financial performance. Illiquidity, unless remedied, will give rise to insolvency and eventually bankruptcy as the business liabilities exceed its assets. The fact that it is impossible for firm to survive without making profits cannot be over emphasized. As a result, the company does not meet its business operation and will decrease the performance off the company. A company should maintain adequate liquidity to face unexpected conditions such as seasonal demand because it may not be able to acquire funds from external sources and it could affect the income and capital of the company. For example, if a liquidity shortfall arises, the company may not be able to meet obligations to suppliers, causing suppliers to stop delivery of raw materials which will hinder the production process, economies of scale cannot be achieved and cost of production will be increased. Therefore, a company may lose its market share due to scarcity of its product in market.

The solvency problem tends to be more long-term than the previously described liquidity issue. Mehdi and Mohammed (2014) opined that the difference between liquidity and solvency lies in the fact that a liquid firm does not imply that it is solvent while a solvent firm does not imply that it is liquid. Goodhart (2008) remarked that an illiquid firm can rapidly become insolvent, and an insolvent firm illiquid. Illiquidity is a sufficient but not a necessary condition for default. Ultimately, capital must cover the losses. But in the meantime, sufficient liquidity can be the single most decisive factor in firm ability to survive a crisis.

Therefore firm must have optimal liquidity as well optimal debt level (Kebewar and Ahmed Shah, 2013) in order to enhance firm performance. The importance of liquidity can be seen when shortage of liquidity occur, the firm suffers various problems in order to maintain the day-to-day operational activities (Karmakar, 2016). In addition, due to the shortage of liquidity, a shareholder may have to lose his control of ownership which even ultimately invite lower profit-abilities. Moreover, a shareholder may not be paid his dividend in time due to shortage of liquidity (Karmakar, 2016). Therefore, the important of liquidity to the firm cannot be ignored because it will affect the day to day operation as well the firm performance. On the other hand, the importance of solvency is it can help ensure firm financial

performance. A poor solvency ratio may suggest that the company were unable to meet its obligations in the long term. Fortunately, most companies can take steps to improve their solvency ratios and boost profitability in the long term by selling assets to reduce overall debt. In addition, a company may opt to reorganize its business structure, increase owner equity or reinvest money and assets in the business (Maguire, 2016). Finally, companies should also strive to improve sales, as this will ultimately boost both profitability and solvency (Maguire, 2016).

There are substantial empirical evidences concerning factor affecting the profitability of the firms studies by many researchers (Dang, 2011; Olweny and Shipho, 2011; Gakure. 2012; Ongore and Kusa, 2013; Lartey et al., 2013; Zulqernain et al., 2014; Dahiyat, 2016). These factors include liquidity, solvency, asset quality, firm size and growth. The results of their effect on profitability have been mixed. For instance, Dang (2011) found out that adequate level of liquidity is positively related with bank profitability whereas Gakure (2012) concluded that there was a negative relationship between the level of liquidity and profitability. The review of empirical studies both in Malaysia and internationally have had mixed conclusions as to how liquidity affects profitability. For example, Zulqernain et al. (2014) found a positive relationship between liquidity and profitability of construction firms in Malaysia. Lartey et al. (2013) concluded that there was a very weak positive relationship between the liquidity and the profitability of the listed banks in Ghana. While Ongore and Kusa (2013) reported insignificant relationship between liquidity and profitability of banks.

While there are various studies on the effect of liquidity and solvency on profitability, there are few studies have been conducted in the context of firms listed at the Bursa Malaysia. Previous studies have also either concentrated on liquidity effects on performance or solvency effects on performance but not both variables effect on performance in the same study. Results of existing literature give mixed conclusions as some show negative relationship, others positively significant relationship and others no relationship at all. It is also clear from the literature review that no exhaustive study has been undertaken in Malaysia on how liquidity and solvency affect profitability of consumer product sector firms. To the knowledge of the researcher, no specific study has been carried out in Malaysia on how liquidity and solvency affect profitability of consumer product sector firms. There is therefore a gap in literature which the present study seeks to bridge to fill in the research gap and to contribute to the body of knowledge in area of liquidity, solvency and profitability.

1.4 Research Question

Two research questions were developed which as follows:

- I. What is the level of liquidity, solvency and profitability among public-listed consumer product companies in Malaysia?
- II. Is there any significant relationship between liquidity and solvency and profitability of public-listed consumer product companies in Malaysia?

1.5 Research Objective

The following research objectives were developed which as follows:

- I. To examine the level of liquidity, solvency and profitability among public-listed consumer product companies in Malaysia.
- II. To determine any significant relationship between liquidity and solvency and the profitability of public-listed consumer product companies in Malaysia.

1.6 Research Scope

The financial data retrieved from the financial statements in the period of the last 3 years (2013-2015) of 116 companies listed on Bursa Malaysia in the consumer sector are the scope of the study. The data obtained is in the form of secondary that gain through the Bursa Malaysia website. Consumer sector as firms involved in the production of food, clothing, and electronics typically involve a high sales turnover, cash and debt management is an important component to cover routine business operations.

1.7 Research Significance

REFERENCES

- Agbada, A. O., & Osuji, C. C. (2013). The efficacy of liquidity management and banking performance in Nigeria. *International Review of Management and Business Research*, 2(1), 223-233.
- Ahmad, A. A. (2013). Term Paper on: Investment Analysis and Portfolio Management of ABC Company. Ghana Technology University College: Master's Thesis.
- Ali, A., & Majid, A. (2010). Current Ratio | Formula | Example | Analysis | Industry Standards. Retrieved January 2, 2017 from <http://accounting-simplified.com/financial/ratio-analysis/current.html>.
- Ali, A., & Majid, A. (2010). Debt to Equity Ratio | Formula | Example | Analysis | Industry Standards. Retrieved January 2, 2017 from <http://accounting-simplified.com/financial/ratio-analysis/debt-to-equity.html>.
- Akintoye, I. R. (2008). Effect of capital structure on firms' performance: the Nigerian experience. *European Journal of Economics, Finance and Administrative Sciences*, 10(1), 233- 243.
- Alanazi, A. S., Liu, B., & Forster, J. (2011). The financial performance of Saudi Arabian IPOs. *International Journal of Islamic and Middle Eastern Finance and Management*, 4(2), 146-157.
- Albercht. W. S., Stice. E. K., & Stice. J. D. (2008). *Accounting Financial*. 9th ed. International Student Edition: Thomson South-Western, 546-547.
- Almazari, A. A. (2013). The Relationship between Working Capital Management and Profitability: Evidence from Saudi Cement Companies. *British Journal of Economics, Management & Trade*, 4(1), 146-157.
- Al Nimer, M., Warrad, L., & Al Omari, R. (2015). The Impact of Liquidity on Jordanian Banks Profitability through Return on Assets. *European Journal of*

Business and Management, 7(7), 229-232.

- Aminu, Y. (2015). A Review of Anatomy of Working Capital Management Theories and the Relevant Linkages to Working Capital Components : A Theoretical Building Approach. *European Journal of Business and Management*, 7(2), 10–18.
- Attari A. M., & Raza, K. (2012). The Optimal Relationship of Cash Conversion Cycle with Firm Size and Profitability. *International Journal of Academic Research in Business and Social Sciences*, 2(12), 189- 203.
- Azam, M., & Haider, I. (2011). Impact of Working Capital Management on Firms' Performance: Evidence from Non-Financial Institutions of KSE-30 Index. *Interdisciplinary Journal of Contemporary Research in Business*, 3(5), 481-492.
- Banafa, A. S., Muturi, W., & Ngugi, K. (2015). The liquidity factor in the financial performance of non-listed financial firms in Kenya. *International Journal of Finance and Accounting*, 4(7), 1112-118.
- Bandt, O. De, Camara, B., Pessarossi, P., & Rose, M. (2014). Does the capital structure affect banks' profitability? Pre- and post-financial crisis evidence from significant banks in France. *Débats Économiques et Financiers* N12, 12(1), 1–49.
- Barclay, M. J., & Smith, C. W. (2005). The capital structure puzzle: The evidence revisited. *Journal of Applied Corporate Finance*, 17(1), 8-17.
- Berger, A. N., & Patti, E. N. (2006). Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry. *Journal of Banking & Finance*, 30(4), 1065-1102.
- Bhattacharjee, A. (2012). *Social Science Research: principles, methods, and practices*. Health research policy and systems / BioMed Central (Vol. 9).
- Bhunja, A. (2010). A trend analysis of liquidity management efficiency in selected private sector Indian steel industry. *International Journal of Research in Commerce and Management*, 1(5), 9-21.
- Bhunja A., Khan I., & Mukhuti S. (2011). A Study of Managing Liquidity. *Journal of Management Research*, 3(2), 1-22.
- Bolek, M. (2013). Profitability As a Liquidity and Risk Function Basing On the New Connect Market in Poland. *European Scientific Journal*, 9(28), 1-15.
- Boodhoo, R. (2009). Capital structure and ownership structure: a review of literature. *The Journal of On line Education*, January Edition, 1- 8.

- Brigham, E., & Houston, J. F. (2016). *Fundamentals of financial management*. 14th Ed. Boston, MA: Cengage Learning.
- Brooks, C. (2008). *Introductory Econometrics for Finance*. New York: Cambridge University Press.
- Bryman, A., & Bell, E. (2007). *Business Research Methods*. 2nd Ed. New York: Oxford University Press Inc.
- Burrow, M., Martin, D. J., Martin, P., Keown, J. A., Titman, S., & Petty, W. J. (2015). *Financial Management: Principles and Applications*. 6th Ed. United State. Prentice hall.
- Bursa, M. (2016). Classification of Bursa Malaysia Sectors, Malaysia. Retrieved January 12, 2016, from http://www.bursamalaysia.com/misc/regulation_rules_main_market_bm_main_sector_classification.pdf
- Chechet, I. L., & Olayiwola, A. B. (2014). Capital Structure and Profitability of Nigerian Quoted Firms: The Agency Cost Theory Perspective. *American International Journal of Social Science*, 3(1), 139-158.
- Chisti, A. K., Ali, K., & Sangmi, D. I. M. (2013). Impact of Capital Structure On Profitability Of Listed Companies (Evidence From India). *The USV Annals of Economics and Public Administration*, 13(1), 183-191.
- Chowdhury, A., & Paul Chowdhury, S. (2010). Impact of capital structure on firm's value: Evidence from Bangladesh. *Business and Economic Horizons*, 3(3), 111–122.
- Cooper, D. C., & Schindler, P. S. (2009). *Business research methods*. 9th Ed. New Delhi: Tata. McGraw-hill.
- CPA Australia. (2010). Guide to managing liquidity risk. CPA Australia. Retrieved January 12, 2016 from <http://www.cpaaustralia.com.au/cps/rde/xbcr/cpa-site/Guide-to-managing-liquidity-risk.pdf>
- Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. California: Sage Publications Inc.
- Dahiyat, A. (2016). Does Liquidity and Solvency Affect Banks Profitability? Evidence from Listed Banks in Jordan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 6(1), 35–40.
- Dang, U. (2011). The CAMEL Rating System in Banking Supervision: a Case Study of Arcada University of Applied Sciences, International Business.

- Delen, D., Zaim, H., Kuzey, C., Zaim, S (2013). A comparative analysis of machine learning systems for measuring the impact of knowledge management practices. *Journal Decision Support Systems*, 54(2), 1150–1160.
- Deloof M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of Business and Finance Accounting*, 30(1), 573-587.
- Denscombe, M. (2007). *Good Research Guide for Small-Scale Social Research Projects*. 3rd Ed. England: McGraw-Hill.
- Department of Statistic Malaysia. (2013). *Yearbook of Statistics Malaysia*. Retrieved on May 12, 2016 from <https://www.statistics.gov.my>
- Department of Statistic Malaysia. (2014). *Yearbook of Statistics Malaysia*. Retrieved on May 12, 2016 from <https://www.statistics.gov.my>
- Department of Statistic Malaysia. (2016). *Yearbook of Statistics Malaysia*. Retrieved on May 12, 2016 from <https://www.statistics.gov.my>
- Ebaid, I. E. S. (2009). The impact of capital-structure choice on firm performance: empirical evidence from Egypt. *The Journal of Risk Finance*, 10(5), 477–487.
- Ehiedu, V. C. (2014). The Impact of Liquidity on Profitability of Some Selected Companies: The Financial Statement Analysis (FSA) Approach. *Research Journal of Finance and Accounting*, 5(5). 2222-2847.
- Eljelly, A. M. A. (2004). Liquidity – profitability tradeoff: An empirical investigation in an emerging market. *International Journal of Commerce & Management*, 14(2), 48-61.
- Everard, K. E., & Burrow, J. L. (2004). *Business Principles and Management*. 11th Edition. Thomson South-Western.
- Farhad, A., & Aliasghar, A. (2013). The Relationship between Capital Structure and Profitability (Case Study in Tehran Stock Exchange). *Technical Journal of Engineering and Applied Sciences*, 3(16), 1787-1789.
- Filbeck, G., & Krueger, T. M. (2005). An Analysis of Working Capital Management Results Across industries. *Mid-American Journal of Business*, 20 (2), 10-17.
- Folger, J. (2014). What is considered a high debt-to-equity ratio and what does it say about the company? Retrieved January 12, 2017 from <http://www.investopedia.com/ask/answers/063014/what-considered-high-debttoequity-ratio-and-what-does-it-say-about-company.asp>
- Fuhrmann, C. R. (2016). What are the main differences between return on equity (ROE) and return on assets (ROA)? Retrieved November 22, 2016 from

<http://www.investopedia.com/ask/answers/070914/what-are-main-differences-between-return-equity-roe-and-return-assets-roa.asp>

- Gakure, R., Cheluget, K. J., Onyango, J. A., & Keraro, V. (2012). Working capital management and profitability of manufacturing firms listed at the Nairobi stock exchange. *Prime Journal of Business Administration and Management (BAM)*, 2(9), 680-686.
- Garanina, T., & Olga, P. (2015). Liquidity, cash conversion cycle and financial performance: case of Russian companies. *Investment Management and Financial Innovations*, 12(1), 356-347.
- Garmestani, A. S., Allen, C. R., Mittelstaedt, J. D., Stow, C. A., & Ward, W. A. (2006). Firm size diversity, functional richness, and resilience. *Journal Environment and Development Economics*, 11(4), 533-551.
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference*. 4th Edition. Boston: Allyn & Bacon.
- Gibson, C.H. (2009). *Financial reporting and analysis*. 11th Edition. South-Western Cengage Learning.
- Gill, A., Biger, N., & Mathur, N. (2010). The relationship between working capital management and profitability: Evidence from the United States. *International Research Journal of Finance and Economics*. 23(1), 116-167.
- Gill, A., Biger, N., & Mathur, N. (2011). The effect of capital structure on profitability: Evidence from the United States. *International Journal of Management*, 28(4), 3-15.
- Goddard J., Tavakoli M., & Wilson J. (2005). Determinants of profitability in European manufacturing and services: Evidence from a dynamic panel data. *Applied Financial Economics*, 15(18). 1269–1282.
- Godwin, E. B., & Comfort, E. M. (2015). Bank Profitability and Liquidity Management: A Case Study of Selected Nigerian Deposit Money Banks. *International Journal of Economics, Commerce and Management*, 3(4), 1-24.
- Goel, U., Chadha, S., & Sharma, A. K. (2015). Operating liquidity and financial leverage: evidences from Indian machinery industry. *Procedia-Social and Behavioral Sciences*, 189, 344-350.
- Goodhart, C. (2008). Liquidity risk management. *Financial Stability Review*, 11(6), 39-44.

- Gowthorpe, C. (2003). *Business Accounting and Finance for non-specialists*. Thomson. 350-353.
- Goswami, S., & Sarkar, A. (2011). Liquidity, profitability analysis of Indian airways sector – an empirical study. *International journal of research in commerce & management*, 2(6), 116 – 122.
- Goyal, A. (2013). The impact of capital structure on Performance of Listed Public Sector Banks in India. *International Journal of Business and Management Invention*, 2(10), 35-43.
- Ghosh, N., Dey, D., Moulvi, A. N., Jain, N., Kedlaya, S., Sharma. S., Bhosale, S., & Mayekar, R. (2013). Importance and Benefits of Hedging. *Occasional Paper Series*, 3(1), 1-32.
- Gujarati, D. (2004). *Basic Econometrics*. 4th Ed. Boston: Mc GrawHill.
- Gul, S., Khan, M. B., Raheman, S. U., Khan, M. T., Khan, M., & Khan, W. (2013). Working capital management and performance of SME sector. *European Journal of Business and management*, 5(1), 60-68.
- Hadi, M. (2006). Review of Capital Market Efficiency: Some Evidence from Jordanian Market. *International Research Journal of Finance and Economics*, 3(3). 13-27.
- Hair, J. F. (2006). *Multivariate data analysis*. New York: Prentice Hall.
- Hair, J. F., Money, H. A., Samouel, P., & Page, M. (2007). *Research Methods for Business*. England, John Wiley and Sons Ltd.
- Hair, J. F. (2010). *Multivariate data analysis: a global perspective*. New Jersey: Pearson.
- Holz, A. (2002). The Impact of the Liability-Asset Ratio on Profitability in China's Industrial State-Owned Enterprises. *China Economic Review*, 13(1), 1-26.
- Hovakimian, A., Hovakimian, G., & Tehranian, H. (2004). Determinants of target capital structure: The case of dual debt and equity issues. *Journal of Financial Economics*, 71(3), 517–540.
- Huang, G., & Song, F. M. (2006). The determinants of capital structure: Evidence from China. *China Economic Review*, 17(1), 14-36.
- Innocent, E. C., Mary, O. I., & Matthew, O. M. (2013). Financial ratio analysis as a determinant of profitability in Nigerian pharmaceutical industry. *International journal of business and management*, 8(8), 107-117.
- Iswatia, S., & Anshoria, M. (2007). The Influence of Intellectual Capital to Financial Performance at Insurance Companies in Jakarta Stock Exchange (JSE).

- Proceedings of the 13th Asia Pacific Management Conference*. Melbourne, Australia. 2007. 1393-1399.
- Jenkinson, N., Stability, F., & England, B. Strengthening regimes for controlling liquidity risk – some lessons from the recent turmoil. *Euromoney Conference on Liquidity and Funding Risk Management*, London. 2008. 1–9.
- Jensen, M.C. (1986). Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review*, 76(2), 323-329.
- Jin, Y., & Jorion, P. (2006). Firm value and hedging: Evidence from US oil and gas producers. *The Journal of Finance*, 61(2), 893-919.
- Karmakar, R. (2016). Liquidity of a Firm: Meaning, Importance and Measurement | Ratio Analysis. Retrieved January 20, 16 from <http://www.yourarticlelibrary.com/accounting/ratio-analysis/liquidity-of-a-firm-meaning-importance-and-measurement-ratio-analysis/65861/>
- Kebewar, M., & Ahmed Shah, S. M. N. (2013). The Effect of Debt on Corporate Profitability : Evidence from French Service Sector. *Brussels Economic Review*, 56(1), 43–59.
- Kesimli, I. G., & Gunay, S. G. (2011). The Impact of Global Economic Crisis on Working Capital of Real Sector in Turkey. *Business and Economic Horizon*, 4(1), 52-69.
- Khidmat, W., & Rehman, M. (2014). Impact of Liquidity & Solvency on Profitability Chemical Sector of Pakistan. *Economics Management Innovation*, 6(3), 3-13.
- Kilama, A. P. (2011). Inventory Management and Financial Performance Manufacturing Industries: A Case of Uganda Clays Limited. Retrieved March 6, 2016 from <http://ww.convdocs.org/docs/index-123797.html?page=19>
- Kim, W., & Sung, T. (2005). What makes firms manage FX risk?. *Emerging markets review*, 6(3), 263-288.
- Kithii, J.N., (2008).The relationship between working capital management and profitability of listed companies in the Nairobi Stock Exchange. University of Nairobi: Master's Thesis.
- Lartey, V.C., Antwi, S., & Boadi, E. K. (2013). The relationship between liquidity and profitability of listed banks in Ghana. *International Journal of Business and Social Science*, 4(3), 48-56.
- Langiemier, M. R. (2004). *Financial Ratios Used in Financial Management*. Kansas State University

- Lazaridis J., & Tryfonidis, D. (2006). Relationship between working capital management and profitability of listed companies in the Athens stock exchange. *Journal of Financial and Managerial Analysis*, 19(10), 26-35.
- Liargovas, P., & Skandalis, K. (2008). Factor affecting firm's financial performance: The Case of Greece. Athens: University of Peloponnese Press.
- Maguire, A. (2016). Understanding solvency ratio. Retrieved March 6, 2016 from <http://quickbooks.intuit.com/r/financial-management/understanding-solvency-ratios>.
- Majeed S., Makki M. A. M., Saleem S., & Aziz T. (2013). The Relationship of Cash Conversion Cycle and Profitability of Firms: An Empirical Investigation of Pakistan Firms. *Journal of Emerging Issues in Economics, Finance and Banking*, 1 (1), 35-51.
- Makori, M. D., & Jagongo, A. (2013). Working Capital Management and Firm Profitability: Empirical Evidence from Manufacturing and Construction Firms Listed on Nairobi Securities Exchange, Kenya. *International Journal of Accounting and Taxation*, 1(1), 1-14.
- Malik, Q. A., & Ahmed, S. F. (2013). Idiosyncratic effect of liquidity management strategies on corporate performance valuation-a study of chemical industry. *World Applied Sciences Journal*, 28(1), 114–119.
- Maness, T. S. & Zietlow, J. T. (2005). *Short-term financial management*. 3rd edition. Ohio: South-Western/Thomson Learning.
- Manyo, T. S., & Ogakwu, V. N. (2013). Impact of Liquidity on Return on Assets of Firms: Evidence from Nigeria. *International Journal of Management & Information Technology*, 6(3), 885-894.
- Margaritis, D., & Psillaki, M. (2010). Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*, 34(3), 621-632.
- Martin, R., Cohen, W. J., & Champion, R. D. (2013). Conceptualization, Operationalization, Construct Validity, and Truth in Advertising in Criminological Research. *Journal of Theoretical and Philosophical Criminology*, 5(1), 1-38.
- Mathuva, D. M. (2010). Influence of working capital management components on corporate profitability: A survey on Kenyan listed firms. *Research Journal of Business Management* 3 (1), 1-11.

- Mehdi, F., & Mohammed, V. Liquidity and solvency in the international banking regulation. Munich, Germany: The Clute Institute *International Academic Conference*. 2014. 232-238.
- Mello, A. S., & Parsons, J. E. (2000). Hedging and Liquidity. *Review of Financial Studies*, 13(1), 127-153.
- Mishkin, F. S., Stern, G. & Feldman, R. (2006). How big a problem is too big to fail? A review of Gary Stern and Ron Feldman's 'too big to fail' the hazards of bank bailout. *Journal of Economic Literature*, 44(4), 988-1004.
- Mohammadzadeha, M., Rahimia, F., Rahimib, F., Aarabic, S. M., & Salamzadeha, J. (2013). The Effect of Capital Structure on the Profitability of Pharmaceutical Companies The Case of Iran. *Services Iranian Journal of Pharmaceutical Research*, 12(3), 573-577.
- Mukhopadhyay, D. (2004). Working Capital Management in Heavy Engineering Firms. A Case Study. Retrieved March 6, 2016 from myicwai. Com. Knowledge bank /fm48.
- Muranaga, J., & Ohsawa, M. (2002). Measurement of liquidity risk in the context of market risk calculation. *The Measurement of Aggregate Market Risk*, 193–214.
- Murray, J. (2016). What is Solvency in a Business? Retrived February 16, 2016 from <https://www.thebalance.com/solvency-in-business-398474>
- Mutenheri E., & Zawaira T. (2013). The Association Between Working Capital Management and Profitability of Non-Financial Companies Listed on the Zimbabwe Stock Exchange. *International Journal of Research in Social Sciences*, 3(8), 114-120.
- Muthoni, R. M. (2013). The effect of liquidity and solvency on the profitability of commercial banks in kenya. University of Nairobi: Master's Thesis.
- Myers, S.C. (1984). The Capital Structure Puzzle. *Journal of Finance*, 39(3), 575-592.
- Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics*, 13(2), 187-221.
- Nawaz, A., Atif, S., & Aamir, F. S. (2015). Impact of Financial Leverage on Firm's Profitability: An Investigation from Cement Sector of Pakistan. *Research Journal of Finance and Accounting*, 6(7), 75-80.

- Nirajini, A., & Priya, K. (2013). Impact of Capital Structure on Financial Performance of the Listed Trading Companies in Sri Lanka. *International Journal of Scientific and Research Publications*, 3(5), 1-9.
- Nireesh, A. J., & Velnampy, T. (2012). The Relationship between Capital Structure & Profitability. *Global Journal of Management and Business Research*, 12(13), 66-73.
- Obida S. S., & Owolabi S. A. (2012). Liquidity Management and Corporate Profitability: Case Study of Selected Manufacturing Companies Listed on the Nigerian Stock Exchange. *Business Management Dynamics*, 2(2), 10-25.
- Oladipupo, A. O., & Okafor, C. A. (2013). Relative contribution of working capital management to corporate profitability and dividend payout ratio: Evidence from Nigeria. *International Journal of Business and Finance Research*, 3(2), 11-20.
- Olweny, T., & Shipho, M. T. (2011). Effects of Banking Sectoral Factors on the Profitability of Commercial Banks in Kenya. *Economics and Finance Review*, 1(5), 1-30.
- Onaolapo, A. A., & Kajola, S. O. (2010). Capital Structure and Firm Performance: Evidence from Nigeria. *Journal of Economics, Finance and Administrative Sciences*, 25, 70- 82.
- Ongore, V., & Kusa, G. (2013). Determinants of Financial Performance of Commercial Banks in Kenya. *International Journal of Economics and Financial issues*, 3(1), 237-252.
- Opoku, E. F., Adu, J. K., & Anarfi, B. O. (2013). The Impact of Capital Structure and Profitability of Listed Banks on the Ghana Stock Exchange. *Social and Basic Sciences Research Review*, 1(2), 74-91.
- Padachi, K. (2006). Trends in working capital management and its impact on firms' performance: an analysis of Mauritian small manufacturing firms. *International of Business Research Papers*, 2(2), 45-58.
- Pervan, M., & Visic, J. (2012). Influence of Firm Size on Its Business Success. *Croatian Operational Research Review*, 3(1), 213-223.
- Qasim, S., & Ramiz, R. (2011). Impacts of liquidity ratios on profitability. *Interdisciplinary Journal of Research in Business*, 1(7), 95-98.

- Rao N. V., Al-Yahyaee K. H. M. & Syed L. A. M. (2007). Capital structure and financial performance: evidence from Oman. *Indian Journal of Economics and Business*, 6(1), 1-14.
- Rehman, M. Z., Khan, M. N., & Khokhar, I. (2015). Investigating Liquidity-Profitability Relationship: Evidence from Companies Listed in Saudi Stock Exchange (Tadawul). *Journal of Applied Finance & Banking*, 5(3), 159–173.
- Richards, A. B., Stewart, C. M., & Franklin, A. (2008). *Principles of Corporate Finance*. 9th Ed. New York, Wiley and sons.
- Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2008). *Essentials of corporate finance*. New York: McGraw-Hill/Irwin.
- Russell, L. A., Langemeier, M. R., & Briggeman, B. C. (2013). The impact of liquidity and solvency on cost efficiency. *Agricultural Finance Review*, 73(3), 413–425.
- Sarkar, S., & Zapatero, F. (2003). The Trade-Off Model with Mean Reverting Earnings: Theory and Empirical Tests. *The Economic Journal*, 113 (490), 834–60.
- Salim, M., & Yadev, R. (2012). Capital structure and firm performance: Evidence from Malaysian listed companies. *Social and Behavioral Sciences*, 65, 156–166.
- Saleem, Q., & Rehman R. (2011). Impact of liquidity ratios on profitability. *Interdisciplinary Journal of Research in Business*, 1(7), pp. 95-98.
- Salkind, N. J. (2012). *Exploring Research Eight Edition*. University of Kansas, Pearson.
- Saunders, M., Lewis, P., & Thornhill, A., (2009). *Research Methods for Business Students*. 5th Ed. England: Pearson.
- Shamaileh, M. O., & Khanfar, S.M. (2014). The Effect of the Financial Leverage on the Profitability in the Tourism Companies (Analytical Study-Tourism Sector-Jordan). *Business and Economic Research*, 4(2), 251-264.
- Sharma, S. V. A. (2013). Impact of debt equity ratio on Chinese banks. *SSRN Electronic Journal*, 1(2), 1-21.
- Sharma, A. K., & Kumar, S. (2011). Effect of working capital management on firm profitability: Empirical evidence from India. *Global Business Review*, 12 (1), 159-173.
- Sheikh, N. A., & Wang, Z. (2011). Determinants of capital structure. *Managerial Finance*, 37(2), 117–133.

- Sheikh, N. A., & Wang, Z. (2013). The impact of capital structure on performance: An empirical study of non-financial listed firms in Pakistan. *International Journal of Commerce and Management*, 23(4), 354–368.
- Shubita, D. M., & Alsawalhah, D. J. (2012). The Relationship between Capital Structure and Profitability. *International Journal of Business and Social Science*, 16(16), 104-112.
- Sivia, D.S., & Skilling, J. (2006). *Data analysis: a Bayesian tutorial*. 2nd Ed. US: Oxford University Press.
- Stulz, R. (1990). Managerial discretion and optimal financing policies. *Journal of Financial Economics*, 26(1), 145-158.
- Subhanij, T. (2010). Liquidity measurement and management in SEACEN Countries Economies. Retrieved January 7, 2016 from [http://www.seacen.org/GUI/pdf/publications/research_proj/2010/RP81/RP81_complete .pdf](http://www.seacen.org/GUI/pdf/publications/research_proj/2010/RP81/RP81_complete.pdf)
- Taani, K. (2013). Capital Structure Effects on Banking Performance: A Case Study of Jordan. *International Journal of Economics, Finance and Management Sciences, Science PG*, 1(5), 227–233.
- Vahid, T. K., Mohsen, A. K. & Mohammadreza, E. (2012) .The Impact of Working Capital Management Policies on Firm's Profitability and Value: Evidence from Iranian companies. *International Research Journal of Finance and Economics*, 88, 155-162.
- Walsh, C. (2008). *Key Management Ratios*. 4th Ed. London: Prentice Hall.
- Williamson, O. E. (1988). Corporate Finance and Corporate Governance. *The Journal of Finance*, 43(2), 567-591.
- Yazdanfar, D., & Öhman, P. (2015). Debt financing and firm performance: an empirical study based on Swedish data. *The Journal of Risk Finance*, 16(1), 102–118.
- Zulqernain, S. N., Wan Ibrahim, F. M. W., & Zaid, M. A. N. The Determinants of Profitability : Evidence from Malaysian Construction Companies. *Proceedings of 5th Asia-Pacific Business Research Conference*, Kuala Lumpur, Malaysia. 2014. 1–13.
- Zygmunt, J. Does liquidity impact on profitability? *Conference of informatics and management sciences*. 2013. 247-251.